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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/813,001	03/21/2001	Jeffrey P. Grundvig	GRUNDTVIG 25-14	4087

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EXAMINER

CHO, UN C

ART UNIT

PAPER NUMBER

2687

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/813,001	<b>Applicant(s)</b> GRUNDTVIG ET AL.	
	<b>Examiner</b> Un C. Cho	<b>Art Unit</b> 2687	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 and 12 is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-11 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 5, 8 – 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterzell et al. (US 2003/0040292 A1) in view of Lindoff et al. (US 6,725,024 B1).

Regarding claim 1, Peterzell discloses a smart compensation wireless piconet device, comprising: a wireless piconet front end including a receiver portion and a transmitter portion (Peterzell, Fig. 4, 200, Page 5, Paragraph 0058, line 10 through Paragraph 0066, line 10); and a frequency offset history table adapted to contain a plurality of entries each corresponding to a past frequency offset of a device in a piconet including said smart compensation wireless piconet device (frequency offset table, TABLE 4, Peterzell, Page 9, Paragraph 0096, lines 1 – 6).

However, Peterzell as applied above does not specifically disclose a frequency offset history table adapted to contain a plurality of entries each corresponding to a past frequency offset of a device in a piconet including said smart compensation wireless piconet device; wherein an expected center frequency of a signal received by said receiver portion is adjusted based on one of said plurality of entries in said frequency offset history table corresponding to a device transmitting said signal. In an analogous art, Lindoff discloses a frequency offset history table (look-up table) adapted to contain a plurality of entries each corresponding to a past frequency offset of a device in a piconet (wireless device) including said smart compensation wireless device; wherein an expected center frequency of a signal received by said receiver portion is adjusted based on one of said plurality of entries in said frequency offset history table (look-up table) corresponding to a device transmitting said signal (Lindoff, Col. 3, line 65 through Col. 4, line 37). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Lindoff to the system of Peterzell in order to provide a method and apparatus for generating a local oscillator frequency in a radio receiver comprises controlling the local oscillator such that it generates a signal having the local oscillator frequency that is equal to a carrier frequency of a received signal plus an offset frequency.

Regarding claim 2, Peterzell in view of Lindoff as applied above discloses a local oscillator (Peterzell, Fig. 5, 350) to control a transmit frequency of said

transmitter portion of said wireless piconet front end (Peterzell, Page 5, Paragraph 0063, lines 1 – 12).

Regarding claim 3, Peterzell in view of Lindoff as applied above discloses wherein said wireless piconet front end is a Bluetooth front end (Peterzell, Fig. 4, 200, Page 5, Paragraph 0065, lines 1 – 10).

Regarding claim 4, the claim is interpreted and rejected for the same reason as set forth in claim 1.

Regarding claim 5, Peterzell in view of Lindoff as applied above discloses altering a local oscillator of said receiving piconet device wherein a transmit frequency of a transmitter of said receiving piconet device is offset by an amount approximately equal and opposite to a past amount of frequency offset calculated from a past information packet received from said transmitting piconet device (adjusting the local oscillator according to a frequency offset, Lindoff, Col. 3, line 65 through Col. 4, line 37).

Regarding claim 6, Peterzell in view of Lindoff as applied above discloses calculating an actual frequency offset based on said received information packet.

Regarding claim 8, the claim is interpreted and rejected for the same reason as set forth in claim 3.

Regarding claim 9, the claim is interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 10, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 11, the claim is interpreted and rejected for the same reason as set forth in claim 6.

Regarding claim 13, the claim is interpreted and rejected for the same reason as set forth in claim 8.

***Allowable Subject Matter***

4. Claims 7 and 12 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 7, Peterzell in view of Lindoff as applied above discloses determining a center frequency of a channel used to transmit at least a portion of said information packet; looking up a past frequency offset value of said transmitting piconet device; adjusting a center frequency of an expected frequency or said receiving piconet device; receiving said information packet in said receiving information packet in a receiving portion of said piconet device; calculating an actual frequency offset based on said received information packet.

However, Peterzell in view of Lindoff either alone or in combination fails to teach replacing in said receiving piconet device said past frequency offset value for said transmitting piconet device with a new frequency offset calculated based on said calculated actual frequency offset.

Regarding claim 12, the claim is interpreted and allowed for the same reason as set forth in claim 7.

***Response to Arguments***

6. Applicant's arguments with respect to claims 1 – 13 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Un C. Cho whose telephone number is (571) 272-7919. The examiner can normally be reached on M ~ F 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Un C Cho  
Examiner  
Art Unit 2687

*8/31/05 UC*

*2 UC 9/6/05*  
LESTER G. KINCAID  
SUPERVISORY PRIMARY EXAMINER